

## TITLE OF THE INVENTION

[0001] FLAG POLE

## BACKGROUND OF THE INVENTION

### FIELD OF THE INVENTION

[0002] This invention relates to a flag pole and more specifically, to a flag pole with rotatable flag clips and an electric lamp to illuminate the flag.

### BACKGROUND ART

[0003] The problem of properly displaying a flag is very important since flags must be illuminated at night and should be removed when in inclement weather. Another problem is that on windy days, a flag may become wrapped or "furled" around the pole. People have attempted to solve this situation by having automatic reels and timers. These solutions are often expensive and difficult for the flag owner to operate easily.

[0004] It is an aim of this present invention to present a user-friendly system that will allow a flag owner to display a flag properly under all conditions and for easy removal of the flag. Also, this invention will allow the flag to move easily around the flag pole and not get tangled.

## BRIEF SUMMARY OF THE INVENTION

[0005] This invention relates to a flag pole and more specifically, to a flag pole with rotatable flag clips and an electric lamp to illuminate the flag.

## BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

For a further understanding of this present invention, reference should be made to the following detailed description in conjunction with the accompanying drawings.

FIGURE 1 is a perspective view of a flag pole of the present invention.

FIGURE 2 is a detailed view of a connector.

FIGURE 3 is another view of a connector and a portion of the flag pole.

FIGURE 4 is another embodiment of the flag pole.

## DETAILED DESCRIPTION OF THE INVENTION

The problem of a flag wrapping around a pole in the wind is particularly acute when the pole is attached to a bracket on the side of a building, especially when it is positioned at an angle with the building wall. Figure 1 shows an embodiment of the flag pole, generally indicated at 10, that could be used with a 220 voltage power source. The flag pole 10, including a staff 12 with a longitudinal axis 14 and a light 16 on one end. An electrical power cord 18 can be attached to the staff 12 for supplying electricity to the light 16. In this case, the electrical power cord 18 is shown contained within the staff 12 to protect it from the elements but one skilled in the art would understand that there are other ways to power the light.

Figure 1 shows two connectors 20a, 20b, also referred to as "wind control flag clips," mounted on the staff 12 for rotation about the longitudinal axis 14. The connectors 20 are fixed longitudinally relative to the staff, and thus

do not move up and down the staff, but stay in place. The connectors are capable of being releasably attached to a flag 21 using one or more clips 22 which attach to one or more grommets 24 on the flag 21 or other flag attaching portion of the flag. The connectors 20 allow the flag to swing freely 360° around the longitudinal axis of the staff and thus the flag does not get wound up or furled on to the staff.

Figure 2 shows the connector 20 as including a sleeve 26 that encircles the staff 12 and is free to rotate about the staff. Although the preferred embodiment does not include roller bearings, the sleeve could contain movement means such as roller bearings, ball bearings or other devices to enhance rotation of the sleeve. Clamps 28a, 28b are placed on either side of the sleeve to hold the sleeve in place on the staff 12. Attached to the sleeve 26 is the clip 22 for attaching to the flag. The clip 22 may consist of one or more parts including a clipping portion 22a and a holder 22b. The connector 20, including the sleeve 26, one or more longitudinally fixable clamps 28 to hold the sleeve on the flag pole 10, and the clip 22 can form a flag pole assembly kit for converting a standard flag pole into a flag pole that prevents flag wrapping or furling of the flag around the pole.

Figure 1 also shows the light 16 connected to the staff 12 with a threaded coupling 30 connected to an adjustable light socket 32. The threaded coupling 30 fits into a one half inch compression connector 34 so that the light can sit on the staff 12. The shaft preferably is a tube that has a 32° bend so that the light 16 will shine on the flag. The light could be a 50 watt halogen, par-20 Philips Masterline Halogen, or other light appropriate for outdoor conditions. This embodiment has a protective cage 36 to protect the flag material from burning if the flag would happen to touch the light 16.

The light 16 is connected to a power source by the cord 18 that should be weatherproof with a weatherproof plug, cord caps, and receptacle. The tube

forming the staff 12 has an opening in the lower and opposite ends. The cord extends through the lower openings and terminates in a plug that can be inserted into a conventional outdoor electrical socket. A dusk-to-dawn sensor 38 allows the flag to be lit at all times when there is not sufficient light to illuminate the flag. This is necessary in certain applications since it is required by law that a flag be lit when it is dark if it is not brought down during the evening hours.

Figure 3 shows a connector 40 including a sleeve 42 that sits in a circumferential indent formed by the staff 12. Clamps are not necessary in this embodiment of the connector since the edges 44a, 44b act as limits. Attached to the sleeve 42 is the clip 22 for attaching the flag. In this case, the sleeve can be snapped into the indent, or the staff 12 can be screwed together in two pieces forming an indent. In either case, the sleeve 42 is free to turn in the indent about the axis of the staff 12.

Figure 4 shows an embodiment of the flag pole that can be used with power sources that produce less than 110 volts. The flag pole 50 has a staff 52 with a longitudinal axis 54 with an optional light 56 on one end and an electrical power cord 58 attached to the staff 52, which preferably is threaded through the interior of the staff 52.

Figure 4 shows two connectors 60a, 60b mounted to the staff 52 for rotation about the longitudinal axis 54. The connectors 60 are fixed longitudinally relative to the staff and thus do not move up and down the staff, but stay in place. Each connector 60a, 60b is constructed so that it can move circumferentially around the staff 52 as described above. The connector is also capable of being releasably attached to a flag 62 that may have one or more grommets 64 or other flag attaching portion that can be used to attach the flag to hold the flag to the staff 52. The connectors 60 allow the flag to swing freely

$360^{\circ}$  around the longitudinal axis of the staff 52 and thus the flag does not get wound up or furled on to the staff 52.

The optional light 56 shown in Figure 4 is shown with a mounting bracket 66 so that the light can be attached to the staff 52, here preferably a tube. This staff 52 is shown without a bend and uses the angle of the bracket to ensure the lamp 56 will shine on the flag. The light could be a low voltage spot light appropriate for outdoor conditions. This embodiment may have a protective cage to protect the flag material from burning if the flag should happen to touch the light 56. The light 56 is connected to a power source by the cord 58 that should be weatherproof with a weatherproof plug, cord caps, and receptacle, and can have a dusk-to-dawn sensor 68 that allows the flag to be lit at all times when there is not sufficient light to shine on the flag. In this embodiment the sensor 68 also embodies a low voltage transformer.

While we have described the invention in connection with certain embodiments, we are aware that numerous departures may be made therein without departing from the spirit of the invention and scope of the appended claims.